Philadelphia Area Number Theory Seminar

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Moments of cubic L-functions over function fields

Abstract: I will talk about some recent work with Chantal David and Matilde Lalin about the mean value of L-functions associated to cubic characters over $\mathbb{F}_q[t]$ when $q \equiv 1 \pmod 3$. I will explain how to obtain an asymptotic formula which relies on obtaining cancellation in averages of cubic Gauss sums over functions fields. I will also talk about the corresponding non-Kummer case when $q \equiv 2 \pmod 3$ and I will explain why this setting is somewhat easier to handle than the Kummer case when $q \equiv 1 \pmod 3$, which allows us to prove some better results.

Wednesday, December 5, 2018
2:40 – 4:00 PM

Bryn Mawr College
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Tea and refreshments at 2:20PM in Park 361